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# Individual life, Social life, and Dialectics[1]

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**Abstract:** This paper seeks to show that the link between individual human life and social life is governed by dialectical movement. First, life is characterized as a process in which the own presuppositions are posited. Subsequently, the process of human social metabolism is explained. Finally, the dialectical form taken by the relationship between the individual self and the process of social individuation is highlighted. It is concluded that the process of individual human life is a potency that actualizes itself as a process of social metabolism based on labour.

**Keywords:** Metabolism. Labour. Self; Social individuation. Marx.

## Introduction

The text presented here intervenes in a debate crossed by various disciplines. Its general horizon is that of the discussion about the link between the individual being and the social being, a problem that has accompanied the social sciences up to the present (Johnston, 2018, p. 185; Zizek, 2009). Within this general framework, it specifies its scope by recovering approaches from biology and anthropology to show that the link between social life and individual life demands a recovery of Marx's developments. Thus, it attempts to show that the specificity of individual life can only be illuminated if the concrete way in which individual life develops as social life is contemplated and exposed. This confronts us with the fact that in order to

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understand the link between the two, it is necessary to pause at the way Marx addresses causality, that is, in the dialectic.

This article is divided into three sections. In the first of them, arguments from different authors are recovered, whose common problem is understanding what life is, a concern that is addressed by revisiting German idealist philosophy, in particular, that of Kant and Hegel. After highlighting that to specify what life is, the reviewed literature focuses on the type of causality that governs it, we will move on to our second section, in which we will focus on the developments of Marx. There an attempt will be made to show that the process of social metabolism specific to human beings makes individual existence always already a form that assumes social life, which positions individual biological reproduction as a material presupposition and a result of the process of social life. This issue will lead us to our last section, in which we will emphasize the methodological aspect underlying the problem that concerns us. There we will say that in order to affirm that individual biological life realizes itself as social life, it is necessary to focus on the form of causality on which this assertion rests.

## 1 Individual Life

From the multiplicity of approaches that try to delimit what life is and what is specific about human life in relation to it, we will focus on a body of literature that highlights an aspect already emphasized by Kant and Hegel: life is a form of matter that stands out for being able to set its own assumptions (Thompson, 2007; Kauffman, 2008; Lewontin; Levins, 2015). Thus, in this section we will review the central points of the proposals of Adrian Johnston and Terrence Deacon.

Adrian Johnston (2019, p. 194) summarizes his position across various writings under the name 'transcendental materialism.' This is a perspective which, regarding the point that interests us, following Hegel, assumes that natural life involves a teleological process of self-organization, that is, it implies the formation of some kind of unity capable of acting upon itself and, for that very reason, of distinguishing itself from the material environment from which it needs to appropriate in order to reproduce (2019, p. 42). Life initiates a type of activity, the organic[3], which differs

[3] Maturana and Varela refer to organic molecules prior to the emergence of life. Specifically, to carbon molecules as elements that potentially hold the capacity to generate life due to their ability to support multiple linkages (Maturana; Varela 2003, p. 22). Here, whenever we refer to organicity, we point to life already actualized as such, not to the organic molecules that were its antecedent.

from the mechanical and the chemical because it implies that the living being acts upon itself as a unit irreducible to the elements that compose it (which Hegel then calls organs or members, no longer parts (Hegel, 1982, Vol. 2, p. 487)). What distinguishes the living being is that that which operates upon it as a cause '[…] is determined, modified, and transformed by it independently, because the living being does not allow the cause to achieve its effect, that is, it eliminates it as a cause' (Hegel, 1982, Vol. I, p. 231)[4]. The living being sets its own premises, folding back upon itself (a notion that already appeared in Kant: Johnston, 2018, p. 158 ff.; 2019, p. 38; Marques, 2014, p. 46; Martin, 2023a, p. 103; Deacon, 2011, p. 321) and thereby acting as a totality that coordinates itself in pursuing an end. And this end is set by the living being itself, which makes it, according to Johnston, an autonomous being with an infinite relation to itself (2019, p. 39, 42; Marques, 2016, p. 121).

Life, Johnston emphasizes, is framed by and gives continuity to inorganic matter, since it is determined by the physical and chemical laws that govern it. However, it emerges from it as a structure that breaks it, since it is capable of operating on itself with a certain degree of autonomy with respect to these laws (Johnston, 2019, p. 46). That is, in order to constitute itself as a totality that stands out from inorganic matter, organic matter needs to appropriate and make use of the material determinations by which it is governed. To that extent, the concern already formulated by Kant regarding the link between the phenomenal world and human freedom reappears: how is it that life can operate on itself and at the same time be subjected to the same causal laws that govern inorganic matter? Where does this capacity to be the object of action, both external and internal, and at the same time be its subject, come from? The development of the present writing rests on these questions. The reconstruction of the work of Johnston and Deacon aims to show how each of these authors responds to them. Johnston summarizes (2019, p. 38):

> In advance of the *Philosophy of Nature*, Hegel, as arguably a strong emergentist *avant la lettre*, already is alerting readers to the claim that organics cannot be boiled down to mechanics and physics. Overall, Hegel's anti-reductionist vision of the ensemble of the natural sciences entails granting the different levels and sublevels constituting the philosophies of nature and spirit (at least relative) autonomy with regard to one another. Life's irreducibility to things

[4] Unless expressly stated otherwise, the italics belong to the original.

> nonliving would be a special instance of this general irreducible self-standingness that is operative throughout the strata of both *Natur* and *Geist*.

So that between dimensions or layers of determinations there is relative autonomy, a concept of Althusserian stamp (Johnston, 2019, p. 77; Althusser, 2004; Steimberg, 2018), because organic matter involves, once again, a plane of action that is distinguished from the merely inorganic.[5]

Johnston asserts that only through the knowledge of the most complex form of matter (and strictly, as we will see, with the development of human beings) is it possible to know its simplest forms, since the complex forms retain within themselves, as if overcome, those simpler forms (Johnston, 2019, p. 63). Organic matter, although it initiates a process that inorganic matter lacks, continues to be subject to mechanism and chemism (Johnston, 2019, pp. 59 ff.). For Johnston, following Hegel, this unifying movement of organic life, in which, by setting its own premises, it acts by reproducing the determinations that preceded it and inaugurating, in that reproduction, a power to regard itself as an object nonexistent in the inorganic world; this movement generates the simplest form of speculative knowledge. That is, it can only be reproduced by dialectical knowledge, capable of taking life as a subject, or, in other terms, as a permanent activity of separating from itself to give itself unity (Johnston, 2019, p. 38).

As in the case of Johnston, one of Terrence Deacon's central concerns is to explain the emergence of life from the physical world. Also, like the American philosopher, he draws on Kant and Hegel to account for life: it is a formal and recursive process in which an organism produces itself (Deacon; Haag; Ogilvy 2011, p. 11; Deacon, 2011, p. 315). Thus, as we also saw in Johnston's case, life inaugurates a form of causality within the physical world, teleological causality. Organisms, in this way, organize themselves in order to achieve certain ends (Deacon; Haag; Ogilvy, 2011, p. 3-4). Reusing Aristotle's terms, Deacon states that from a set of determinations that operate mechanically, through an entity that obeys a formal causality - which we will address immediately - final causality emerges as that capable

[5] Later we will focus on the concept of relative autonomy to indicate the problems we find in it. Here we are interested in restoring the foundations of Johnston's approach.

of accounting for the operation of life (Deacon; Haag; Ogilvy, 2001, p. 5; Deacon; Sherman, 2007, p. 875-876). Deacon, Haag, and Ogilvy state about organicity:

> An autonomous self, whether in the form of a bacterium or a reasoning human, is the locus of highly convoluted recursive processes that generate specific forms of work that are organized with respect to some aspect of this autonomous circular dynamics and contrary to some pervasive condition or tendency extrinsic to this autonomous dynamics (2011, p. 14).

The point we want to highlight here is that every life, in order to set its own continuity as a goal, needs to consider itself as an end and, to the same extent, its own existence is already assumed to be separate from the environment with which it interacts (Martin, 2023a, p. 102-103; Deacon; Sherman 2007, p. 880). Hence, Deacon speaks of the autonomy of the organic being as a quality inferred from being alive, since, again, if life is characterized from Kant as that entity capable of producing itself, then it must possess some capacity to act as its own cause, to intervene in the production of a specific effect, its reproduction. At that point, the living being is assumed to be something distinct, closed off with respect to its environment.

Deacon, to do justice to this distinction between the living being and its environment, introduces two notions that are central. First, he refers to the concept of 'constraint'.[6] Deacon states that, prior to life, structured morphodynamic processes already involve a reduction of possibilities. That is, the order that structures a physical or chemical phenomenon as such implies removing possibilities from the particles that make it up, inhibiting other configurations that these particles could potentially adopt. In this way, form does not emerge as a product of an addition to the matter in which it is imprinted, but of a subtraction. The determination of a phenomenon is the result of a constriction, of a rejection of other possibilities inherent to the matter from which it draws (Deacon, 2011, p. 196). Facundo Martin (2023, p. 101) says:

> The foundation of emergent regularity is the *subtraction of possibilities*. Emergent regularities do not *add* anything *substantive* to the natural being. They are defined by what they remove, by what could happen but is avoided, forced into absence. All order is the product of a regime of material constraints operating on a lower level of analysis. These regularities are

[6] We will translate "constraint," following Facundo Martin (2023a), as constriction. Marques (2014, p. 235 et seq.) reconstructs the positions of several of the authors who founded and made use of this notion

> characterized by the emergence of an *emergent regularization*, relatively independent of the matter that serves as their substrate.

This notion, first of all, allows for a clearer understanding of what life is for Deacon. An entity capable of establishing its own assumptions is one capable of regulating the production of these constraints, of ordering the order from which it emerges, of operating on it to reproduce it. There lies the leap that inaugurates life and that establishes teleological causality, capable of operating on itself and distinguishing itself from the environment with which it interacts to exist. Secondly, and to incorporate the other notion referred to above, there is here in Deacon an aspect that places his perspective in the space of Aristotelian philosophy. For the American anthropologist, order arises from the negation of possibilities, from the negative work already present in matter prior to the emergence of life (Johnston 2019, p. 193). But life adds another level to this negation: in order to reproduce itself, the living being needs to somehow connect with that which is absent, both because it reproduces constraints of matter and, in another sense, because it achieves the ends it sets for itself. That is to say, to achieve ends, the living being needs to relate to what does not yet exist (Deacon; Haag; Ogilvy, 2011, p. 7-8).

Deacon questions a crucial point for our work, which refers to the type of unit inherent to the living being. If the living being exists cut off from its environment, if it enjoys some form of self, however elementary it may be, what kind of reality does the boundary that separates the living being from its environment have? Is it an extensive frontier? Or, in other terms, Deacon inquires: what makes the living being a one? (Varela, in Marques, 2014, p. 58). Deacon answers: the self of the living being is a form capable of acting (Deacon; Haag; Ogilvy 2011, p. 7). And when referring to a form, Deacon alludes to the fact that the capacity to regulate and reproduce constraints is an attribute that cannot be ascribed to any specific part of the living being, since it is a power that arises from the unity itself. Summary Deacon, Haag and Ogilvy (2011, p. 10):

> At every moment an organism's material constitution is different, and yet its structural and dynamical organization remains within narrow variational limits, i.e. its organization is highly constrained. […] This minimal persistent "self" that is the beneficiary of this formative process, is not identified with the material or the energy of this process, but with the preserved organization and its capacity to organize work that preserves this capacity.

In this sense, the self or unity of the living being is a form capable of reproducing itself as a form (Deacon, 2011, p. 261). What makes it a living entity does not depend on the matter it organizes, but on the relations between its material parts—then becoming, as parts of the living being, organs. That is, on its determination, on the activity of giving itself form (Hegel, 1997, p. 287-289). A form which, for Deacon, is as real as any other, only that its mode of being is absent (Deacon; Haag; Ogilvy, 2011, p. 6; Martin, 2023a, p. 105). Thus, only the form of these relations, absent in the sense of not being either an extended part or a specific organ, constitutes the unity that reproduces itself. For Deacon, organicity is not a property that belongs, then, to any of the morphodynamic components of the living entity, but, again, to the network of relations as a whole (Deacon; Sherman, 2007, p. 882) and exists in an absent state, since it is not a substance or thing added to the materiality of the living being (Deacon, 2011, p. 2-3 and 480 ff.).

It remains to highlight a final element of Deacon's developments that is also central to this writing. In the notion of constriction, it is assumed that being alive is having an outside. For Deacon, the living being, because it constrains possibilities, operates on itself by operating on the material environment that allows it to reproduce (Marques, 2014, p. 125-127). It is the same action, which shows the porosity of the boundary that separates the living being from its outside. Victor Marques says, reconstructing Deacon's position (2014, p. 253-254):

> […] organisms need to be organizationally closed in order to persist for a time longer than the components that constitute them. This organizational closure, in turn, requires that they be necessarily open systems from a thermodynamic material point of view, engaged with the environment in order to feed their own self-production process under non-equilibrium conditions.

The living being metabolizes with its environment (Marques 2014, pp. 62-63 and 200), in such a way that the unity of the living being is affirmed in the activity of constraining - denying - that which denies it, being reborn as a cutout in relation to this environment and thus reproducing the environment as an exterior one (Marques, 2014, pp. 27-28; Hegel, 1997, p. 420 et seq.; Deacon; Haag; Ogilvy, 2011, p. 13). Once again, the limit that gives unity to the living entity is fragile, since only in exchange

with the environment is it able to reproduce it, and without this environment such a task would be impossible.

Our review of Johnston's and Deacon's positions aimed to recover that in life there is involved the emergence of a unitary cut that actively separates itself from the same environment that allows it to reproduce in its separation (Curtis; Massarini; Schnek, 2008, p. 22). That is to say, life is a process of metabolism with the environment (Maturana; Varela 2003, p. 22; Iñigo Carrera, 2004, p. 232). To now advance in the treatment of human life, it is worth introducing the following question: if life consists of a process capable of establishing its own premises, of making itself, what is the way in which human life reproduces itself? Guided by the developments of Marx and Juan Iñigo Carrera, in our next section we will aim to show that humans reproduce ourselves as living beings through labor. Thus, to understand how we exist as selves distinct from our environment, we need to understand the social bonds through which we reproduce ourselves as a species.

## 2 Individual Life and Social Being

Victor Marques, when reconstructing Stuart Kauffman's position, points out that, for him, no single type of molecule is able to copy itself in isolation; rather, its reproduction is a task carried out collectively, together with others. That is why he talks about a metabolism process (Marques, 2014, p. 250-251). Well, individual human beings reproduce our life only through a social metabolism process mediated by labor (Iñigo Carrera, 2007, p. 3; Marx, 2011, vol. I, pp. 448-449). Let us accompany Marx and Iñigo Carrera to describe what the human labor process consists of.

Marx states that labor consists of the activity of regulating and controlling the exchange of humans with nature. Humans activate and release natural forces carried in our bodies to transform and appropriate natural objects that also allow us to reproduce ourselves, and in this way, we shape them into elements useful for the continuity of human life. Humans have the capacity to transform the environment "[…] into a means for itself through labor; that is, through the expenditure of human force consciously and voluntarily directed at an external object in order to transform it into a use value for human life" (Iñigo Carrera, 2004, p. 2).

In this process of transforming the environment, humans alter their own constitution; we appropriate not only external objects but also our own powers as

producers, and in doing so, we evoke others (hence the famous image that Marx introduces regarding the difference between the bee and the mason: Marx, 1999, p. 216). The human worker imprints on nature an end that governs his own activity, that guides it. The tension of the human body is thus directed by the end that has been set before beginning to execute the transformation of the natural object. In this way, he carries out an activity in which this end remains present in an ideal state, in which during the work process the human has before him the image of what he pursues with his activity, and consequently accomplishes it. He knows, then, that his present activity mediates his own reproduction; that is why it is a voluntary activity that solidifies in a determined object, which, Marx says, amalgamates in him (Marx, 1999, p. 219). Labor appropriates natural and objectified forces to renew the productive forces that beat within humans.

We said that "[t]he process of human life is a process of social metabolism based on labor" (Iñigo Carrera, 2007, p. 3). It is a metabolic process because, according to Maturana and Varela, like any metabolic process, it consists of a web of transformations that produces its own organs (Maturana; Varela, 2003, p. 28), in this case, in the regulated material exchange of human beings with nature, which we simultaneously integrate and which operates as an object, means, and product of labor (Marx, 1999, p. 215 et seq.; Bellamy Foster, 2000, p. 243 et seq.). If above we stated that life consists of a process capable of establishing its own premises, generically human life consists in the regulation of the process of human metabolism with nature through labor. That is, once again, a process of social metabolism, of social life. The difference that separates the human metabolic process from that of other living beings is that, while they regulate and advance in their interaction with the environment by transforming themselves to adapt to it, humans, through labor, produce the environment under conditions that allow the reproduction of our life (Iñigo Carrera, 2004, p. 2-3). As Iñigo Carrera states: "[...] the generically human being resides [...] in the capacity to produce the means of producing the means of life" (2004, p. 209).[7]

Human life in its generic determination is a natural form that appropriates other natural forms that precede, accompany, and support it. It is fully governed by physical, chemical, and biological reactions and, nevertheless, develops through knowledge the capacity to appropriate these determinations and adjust them to its

[7] Van Holstein and Foley mention that there is no evidence of non-humans intentionally producing tools (van Holstein; Foley, 2021)

own reproduction. That is, human life is capable of appropriating its conditions of existence, transforming them (Iñigo Carrera, 2004, p. 232-233). This activity is carried out socially, as a process of social life.

Working involves coordinating the actions of transforming the environment with other human beings. The regulation of natural forces carried in objects and of those arranged in the individual biological body, that is, the material productive forces of human labor, are carried in the individual subjects. It is they who transform nature, who know and operate on the forces that constitute it to make it adopt forms useful for the reproduction of life and who, as we mentioned, in that same process transform themselves. But that process of individual labor activates and awakens productive forces that are irreducible to the human individuals who exercise them. Iñigo Carrera says (2004, p. 2):

> The material productive forces of labor are found embodied in individual labor. But the development of their potentiality is only an attribute of the collective unity of individual labors. In other words, the realization of the human generic being itself is only an attribute of social labor. The organic unity of individual labors, that is, the way in which society organizes the production of its life, takes the concrete form of the social relations of production.

The process of individual work through which human subjects produce our life is always inscribed in the way in which human society reproduces itself as a unity, in the social relations of production. The material reproduction of individual life is a moment of this mode of production, of the organic unity of individual works. When we refer to organic unity, we mean that, in order to transform the environment into one for itself, the individual human subject needs to coordinate their action with that of others; immediately, because the discharge of energy on the objects that make up their environment will produce an environment suitable to be consumed by these others. But, and this is what we are interested in highlighting, mediately because the powers that the process of individual work puts into play are not the result of the exercise of work by that specific subject, but arise from their coordination with the work of others.

The productive forces of individual labor are the result of the organic unity of individual labors, of social relations. In such a way that social life is the specific

prerequisite for individual reproduction because the ability to transform the environment depends on forces that the individual possesses, but that belong only to the social unit as a whole. Or in other terms, they only arise from cooperation with other human beings and have that cooperation as their foundation and condition, both for consumption and for the productive act that it presupposes.[8] That is why human production is, in principle, social production, social life, because in order to produce itself the human individual needs to reproduce others, a reproduction that is, in turn, a condition for individual reproduction. And, again, in that production powers are actualized that do not belong to any specific subject individually, but to coordinated social cooperation. The human individual is then made of social matter (Tran, 1984, p. 26): its muscles, senses, nerves, and forces are distilled from it.

In every living form there is an implied self, and this self is not a material element added to the chemical and physical components that make up the unity of that living being, but a reality that arises from the relationships between those material components. The self of social life is a fabric of social relations of production. And these relations, just as in the case of life, again, do not constitute a reality other than the elements that form these relations; they are not a material aggregate, an extensive substance that is added to its components and turns them into its organs.

The process of human metabolism, being a process of social life, encompasses the generic capacity to provide the conditions for its own existence through labor, which, as we have seen, is carried out collectively. Therefore, once again, the reproduction of individual human life depends on the organic unity of the work performed by each of the individuals, on the mode of production of human life. In such a way that, just as life already implied a distinction with respect to the environment in order to operate on itself, the same occurs with the social relations of production through which human beings produce our life. The capacity to operate on itself, characteristic of every form of life, is an attribute, in this case, of the social nexus.

[8] Precisely because of this, the word coordinate does not reflect the meaning to which we refer here. As the organic unity of social work is always the material basis for the exercise of individual work, humans do not coordinate our work with others as if we were closed entities unto ourselves that later go to meet others. Our individual work is always already an organ of the exercise of social work, of which the former is a moment.

## 2.1 The Social Process of Human Individuation

Literature from the most varied fields and in support of different perspectives points out that the space of social relationships constitutes the element that enables the individuation process (Johnston, 2019, p. 183; Mikhailov, 1980, p. 169; Virno, 2018, p. 3 and 7 ff.; Vygotsky, 2017, p. 121 ff. and 222). All these approaches emphasize that human individuation occurs within a prior plane, as a punctuation of a social fabric that precedes it. Thus, for these authors, human matter becomes an individual only in connection with others, occurring generically. This implies that referring to oneself, affirming oneself as one, directing oneself to a then-own space, being both subject and object (since to take oneself as an object also implies occupying the place of subject) are all attributes of an entity that arises as a reduction of social space, which would thus be, firstly, preindividual. The unity of the individual being would then occur as a result of social relation, of the bond as such, which, as Virno points out, could not even be considered interaction between individuals, simply because up to that point they would not be such (Virno, 2018). Therefore, being a self, from this perspective, responds to a process in which the human must see themselves mirrored in a determination that arises from outside themselves, assuming it as their own, appropriating it.[9]

The reproduction of individual life depends on social life, since the metabolic process that sustains human life is a social process. At the same time, there exists, before that process, some form of individual life, insofar as human society presupposes it.[10] So before social life, physical and chemical forces relate in such a way that they produce an individual living being, which is a condition of social life, and, at the same time, the relationships between these living beings are a condition for the production of the individual human being. We therefore have before us an

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[9] It is worth a clarification. Just as in the case of the developments of Deacon and Johnston, bringing up these approaches does not imply that we agree with them. The aim is to show to anyone reading these lines the existence of a question regarding the relationship between the organic unity of social work and individual existence. Thus, we intend to point out that this literature is traversed by a series of questions that we revisit here, not by the answers that the reviewed authors provide to them. On the other hand, none of these approaches treats social reality as a metaphysical and transcendent entity in relation to the material beings that constitute it. These are not classically holistic approaches that regard the whole as an external and delimited conglomerate in relation to the elements that make it up. For these authors, social reality exists within the individual subjects that it gives rise to. It exists, therefore, as an immanent determination and not transcendent in relation to the individuals in which its reality is already manifested and crystallized. That is, it exists in them, not outside of them, and yet it is irreducible to the subjects taken individually.

[10] Furthermore, it presupposes it with certain material attributes, arranged in human beings after the long process of hominin evolution, since in it the gradual transformation occurs that goes from adapting the body to the environment to work, to adapting the environment to the needs of the creature that performs that activity. This very transformation, that is to say, is what produces Homo sapiens.

individual life presupposed by social life and a social life presupposed by the individual. However, the point is not simply *that*. The problem that concerns us is that any form of life implies, following the literature we revisited above, a self. The autopoiesis of life (Maturana; Varela, 2003, p. 28) assumes that the living being takes itself as an object, so that it knows its own delineation concerning the environment to be able to operate on itself and adapt to it. In the case of humans, the scope and depth of this self extends over an entire set of functions, with a greater or lesser degree of conscious mediation.[11] If any form of self, that is, of individuality, exists in every form of life, how does this human self relate to the process of social individuation? Or, in other terms, if every living form involves cutting itself off from the environment and thus human beings already have an individual existence cut off as living beings - a 'self,' according to Deacon - how can there be a self cut off from the environment and at the same time can the individual self be a distilled cutout of the social being? If any form of self is inherent to the living, does this not imply that prior to social ties individual humans see themselves as distinct from *one another*? And conversely, how can it be asserted that social life individualizes, that it is what makes individuals see themselves as individuals, if the self is already involved in the most elementary forms of the living?

Some form of the self is involved in individual human life, and yet this human creature dedicates itself as a self only in the social space. Marques proposes as an answer that the levels of complexity imply leaps and that each of them inaugurates a plane of determinations that interacts externally with the others. That is, that each level of organization is discontinuous with respect to the rest (Marques, 2014, p. 188). The biological self, the neuronal self, and the linguistic self (social in our development) would be governed by their own specific laws of movement (Marques, 2014, p. 334). The problem we find with this approach is that it does not sufficiently emphasize the unity of movement that the social being enacts. That is, the social being, like every form of life, progresses in appropriating its own biological assumptions to transform them into moments of its own development, placed by itself. In other words, the biological self becomes not a premise, but a result of the form of the social being, of the process of individuation. Let us move toward this point by emphasizing the methodological issue involved.

[11] Based on the developments of Juan Iñigo Carrera, we call conscious that knowledge which is known as knowledge, which is capable of taking itself as an object (Iñigo Carrera, 2007, p. 3)

## Individual life as Potency

Individual consciousness, following Vygotsky and other briefly mentioned authors, is a product of participation in the process of social reproduction. Or, we can say, the self is a formal relationship with oneself, it is the conscious being, whose content is the mode of production. However, the ability to direct oneself by taking oneself as an object is already characteristic of every form of life, not just human life.[12] In other terms, the self exists without conscious knowledge, *the self exists without I*. The question to answer, then, is how, in the case of humans, the self involved in all forms of life, which we call biological, is linked to the self established by the process of social individuation, to the way we treat ourselves as individuals that emerges from the process of social metabolism; with consciousness.

As a living being, the singular human is a one, is an entity that turns upon itself, that is recursive and self-regulates. Now, this process of affirmation is, in turn, a moment of a more concrete unfolding: the process of social metabolism. And only determined by the process of social metabolism, human life carries out its determinations. It is worth resorting to the Aristotelian distinction between potentiality and actuality to assert: human life is a potentiality that actualizes itself in the process of social metabolism.

Through the advancement of knowledge, humanity objectifies the determinations that govern its own organic world—and also the inorganic, of course—and manages to operate on (some of) them. The development of the productive forces of human labor then makes biological determinations themselves mediated by social relations. On this point, Johnston recovers Hegel's figure to distinguish the inorganic, the physical and chemical forces, and these same forces already mediated, negated, by the emergence of life: it is a process of overcoming, of the negation of the negation of the inorganic by the organic (2019, p. 208). The organic negates the inorganic, but at the same time the inorganic affirms itself negated

[12] Coupling in interactions between individuals of a species is characteristic of a multiplicity of living forms (Maturana; Varela, 2003, p. 121 et seq.), which makes the metabolic process of each individual dependent on such coupling in these cases. Now, in the case of humans, as we have stated, collective reproduction takes place through labor, which is a social process because it is mediated by consciousness and will. That is, because it involves knowledge that is recognized as knowledge and through it individual action is carried out (Iñigo Carrera, 2007, p. 3). We therefore reserve the term labor only for the case of human metabolism, since it is a consciously and voluntarily regulated process. For this very reason, only for this genus is the self a social relationship.

in the organic, since it does not cease to operate, but does so transformed by its appropriation by the organic. And, it should be said, organic activity only appears as a result of physical and chemical processes, which is why it is these latter that extend themselves into the life they give rise to. Hence we conclude, again, that the inorganic becomes a power realized through its mediation by organic activity.

This same dialectic is present in the relationship between the biological self and the process of social individuation that takes place in the human species. The biological self is the platform of life, which realizes itself as social life in the process of human social metabolism based on labor. But this means that the determinations of the biological self become, in the case of humans, a potential that actualizes itself in the social being, in the social form that the process of social individuation takes, and only exists in actuality as the social self.

Dialectical knowledge allows understanding the type of causality involved in the process of social metabolism: life, as a prerequisite of the process of social metabolism, is realized in individual human beings. But these are individual due to the social process in which they are realized. Thus, that which is provided by life, human social life, begins to set its own prerequisites, to appropriate the biological determinations that gave rise to it and sustain it (McDowell, 1998, p. 173). Marx says (2011, vol. I, p. 458):

> One works first from a certain foundation: first natural, then supposedly historical. But then this foundation or supposition itself is eliminated or placed as a presupposition that must disappear and that has become too narrow for the unfolding of the human mass in progress.

The simple bodily presupposition of human social relations becomes, through the development of these relations, something produced by the social relations themselves. Or, put another way, the presupposition comes to be established by its own result. That is why Marx asserts that the anatomy of humans explains the anatomy of the monkey (2011, v. I, p. 26), because within a more complex unfolding—bourgeois society—one can account for its own presuppositions—the various forms of historical organization of production that preceded it—, to which one can add that this complexity is the result of the negation of what came before, which it preserves and reproduces within itself. For our purposes, this methodological approach allows showing that individual human life, the material premise of social life,

comes to become an attribute of it and makes the process of individuation one governed by the forms adopted by the social organization of production, by the historically specific mode of production under which human life is reproduced.

We face the dialectical process in which a content is denied in order to adopt a certain form, which in turn reproduces that content as denied. The content, thus, *affirms itself by denying itself as such* and assuming a form of existence different from itself, but that carries it along and presents it transmuted. It is affirmed through its own negation (Iñigo Carrera, 2004, p. 229). However, this does not imply that the potentials contained in said content cannot be known before they are fully developed, since it is perfectly possible to know them as potentials. Hence, it is true that human anatomy explains that of the ape, but it is possible to know the potentials of the latter's anatomy before human development, in its real condition of virtual existence. Juan Iñigo Carrera says (2004, p. 230):

> Each of these concrete forms (which is such by existing currently as a realized necessity) is, precisely because of this, an abstract form (which is such by existing currently as a necessity to be realized, as potential). Thus, determination unfolds in the transformation of an existing form, by denying itself in its actuality as abstract by affirming itself as a realized necessity; and, in turn, this new concrete form has its actual existence by denying itself as such concrete, in its affirmation as a necessity to be realized.

All real forms exist as actual, they exist realized. But at the same time they enclose and develop within themselves a potential to be realized. Through their own activity, they carry out that potential that they are, that determination that they generate within themselves. In this way, they reach their end by actualizing that potential and thus become a real form distinct from themselves. By affirming themselves in what they are, they negate themselves and transform into others through their own activity. This incessant process of affirmation through self-negation is highlighted by Hegel as the basic form of dialectical movement (Caligaris; Starosta, 2017, p. 33) and, for that very reason, can only be ideally reproduced by assuming the contradictory nature of all that is real.

This implies that there is no pure biological self, separate, lying dormant, and identical to itself, which then transforms into a self with the attributes assigned to it by the social being. On the contrary, the biological self in its unity is taken up and

realized in the social form it acquires. This makes the concept of relative autonomy between the biological and social levels a partial, unilateral, and defective notion of the connection between individual biological life and the process of social metabolism, which represents both processes as if they were self-sufficient realities entering into an external relationship with each other (hence the autonomy between them).

Individual biological life, the self, already exists in any form of life. the human species is a product of the development of the powers that life unfolds in its specific manifestations, in the development of genera and species, and in its process of unitary metabolism. It thus emerges as a potential of a specific form of life, from the cooperation between individuals of two species, chimpanzees and bonobos. But, like every concrete form, an actualization of previous potentials, it unfolds within itself certain potentials to be realized. No more and no less than the process of social metabolism that is mediated through labor.

Generic biological life, the productive powers carried in the individual bodies of humans, is a derived product. But at the same time, these are productive powers that are only realized through the organic unity of individual labors, through the social nexus. Therefore, there is no autonomy between levels of determination: individual biological life is, first, the product of a prior form of cooperation, that of chimpanzees and bonobos. Moreover, that individual biological life is a power that realizes itself negated in social bonds. There is no human biological life that does not mediate itself in the process of social metabolism, nor a process of social metabolism that does not rely on certain specific material attributes that we carry as the human species.

It is worth reiterating: what Maturana and Varela call the coupling of interactions does not originate with humans. Human metabolism mediated by labor is a form that this cooperation takes, which already existed among the antecedents of hominins. The individual biological life of every human is the result that awakens that cooperation, but at the same time it is the precondition for the development of a new one: the process of social metabolism. Here we attempt to show that it is impossible to isolate these moments, because as a concrete form, human life involves acting upon its own antecedents, transforming them into potentials that it can modify. Thus, what before it were already realized concrete organic and inorganic forms gradually transform into potentials that depend on the process of social metabolism to assume their concrete forms of existence. Human life, like all forms of life, as a concrete form

of inorganic determinations, becomes, at the same time, the potential to transform its own antecedents into potentials that depend on it to be realized one way or another.

Proposing that there is relative autonomy means separating these planes: maintaining that biological determinations occur, on the one hand, and social life adds to these determinations that respond autonomously with respect to them, conditioning them. As if it were a process of chain reaction and feedback, which implies that each of these planes responds to a specific functioning that, *moreover*, is connected with others. On the other hand, it is argued here that the powers of biological life realize themselves in the organic unity of social labor, always already mediated in their actualization by the mode of production of social life.

Human individuality affirms itself as social individuation. Only in the fullness of its development as a fruit of social life, the proper form of life, that is, the capacity to take oneself as an object, is filled with content and produces an individual who looks at himself with the eyes in which the process of social metabolism germinates in him.

## Conclusions

To conclude this paper, we would like to pose a set of questions that arise and call for future research, since in this paper we seek to lay the general foundations that allow progress, in subsequent investigations, on specific aspects of the relationship between the biological self and the process of social individuation. If, as we try to justify, social life produces forms of individuality that settle upon and appropriate individual biological determinations, it is necessary to show what the most general determinations of individuation are in our society, in capitalist society. Although it exceeds the limits of this work, based on the developments of Marx (1999) and Iñigo Carrera (2004), we affirm that the content of these determinations is to make the mass of workers doubly free individuals. From there, then, we are interested in further exploring the form that this determination imprints on certain specific biological functions involved in perception.

Developments such as those of Patricia Kuhl - beyond the conclusions of her work, what interests us again are the questions on which it is based - indicate that social bonds and linguistic interaction alter perception (Kuhl 2000). That is, social experience shapes neural circuits and, therefore, we conclude, historical forms of

social individuation mediate the access to the world that humans have. It is then worth questioning, based on this methodological point: if perception is always already a product, in general terms, of social relations: is personal freedom a form that mediates the perception that individuals have of their environment? Is there a specific form of perception peculiar to free individuals? This writing sought to propose the general determinations underlying this question, in order to show in which elements its relevance is sustained. Future research will need to advance on the concrete forms that the human social brain assumes.

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